United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

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Henry Dean
Executive Director
South Florida Water Management District
Post Office Box 24680
West Palm Beach, Florida 33416-4680

Dear Mr. Dean,

Thank you for the opportunity to comment on the most recent draft white paper, "Reservations of Water for the Environment and Assurances for Existing Legal Sources Consistent with Federal and State law." We recognize the complexity of the task undertaken in this draft document and are encouraged by the progress the District has made toward developing an approach for implementing the water reservations and assurances requirements for the Comprehensive Everglades Restoration Plan (CERP).

As you know, the Department of the Interior has extensive responsibilities for federal lands and resources throughout south Florida. Interior resources include national parks, national wildlife refuges, federally-listed threatened and endangered species and migratory birds. In general, we note the importance of maintaining sufficient water levels and flows, with the appropriate quantity, timing and distribution, to support and protect freshwater ecosystem functions, terrestrial and avian communities, wetlands, and estuarine and coastal ecosystems.

The white paper appropriately addresses actions to be taken by the District in its delegated authority under state law, including development of rules for regional water availability, reservation of water, and issuance of consumptive use permits for water to be made available by CERP and other projects. We look forward to commenting further on these issues through the rule development process.

The reservations white paper also addresses several actions that will be undertaken as part of CERP, including the development of the pre-CERP baseline, quantification of water to be reserved for CERP projects during the development of Project Implementation Reports (PIRs), and protection of existing legal sources in accordance with the savings clause of the Water Resources Development Act of 2000 (WRDA 2000; Pub. L. 106-541). The draft programmatic regulations presently undergoing public comment propose procedures to guide CERP implementation for these issues. Accordingly, we believe these issues should be addressed within the procedures that are ultimately adopted to implement the CERP.

In addition to the issues noted above, there are three main issues that are of considerable importance to the Department. First, we are pleased to see the concept of an initial pre-CERP

reservation of water for the environment to include the Water Conservation Areas and Everglades National Park. Consistent with the District's Lower East Coast Regional Water Supply Plan, approved by the Governing Board in May, 2000, we also recommend that you consider including other federal and state managed natural areas in an initial reservation. Of particular importance to the Department is the adoption of an initial reservation for Biscayne Bay and Biscayne National Park, which is also designated an Outstanding Florida Water. We believe inclusion of additional federal and state managed natural system areas in an initial reservation will increase protection for fish and wildlife resources, thereby enhancing our ability to achieve our Everglades restoration goals.

Second, and consistent with WRDA 2000 savings clause requirements, the definition of an existing legal source should ensure protection for fish and wildlife resources. We look forward to continued work with the Army Corps, the District, and our other federal, state and Tribal partners, to develop a definition for an existing legal source. Generally, we note that although the white paper proposes to exclude regulatory discharges as an existing legal source, certain Interior-managed conservation lands, including Biscayne National Park and A.R.M. Loxahatchee National Wildlife Refuge, depend upon certain regulatory discharges for a portion of their water supply. Although CERP is largely designed to capture these discharges to make "new" water available for the environment and its restoration, we must improve our understanding and awareness of the dependence of certain fish and wildlife resources on these regulatory releases.

Lastly, since the white paper is silent on the subject of incorporating flood protection, we need to work toward a method to better understand the impacts of flood protection on the natural system, particularly as it affects regional water availability.

Our comments on the reservations white paper are provided as a partner in implementing the CERP, and as a party whose interests and responsibilities are affected by State water management actions. I have included two sets of comments; the first are overriding issues that contain both substantive and policy issues and the second are editorial and technical comments.

The Department appreciates the opportunity to comment on these important issues in water resources protection within the natural areas and looks forward to working with the South Florida Water Management District as work on these proposed protections continues. If you have any questions on the attached comments, please contact Rock Salt at (305) 348-1665.

Sincerely,

Craig Manson
Assistant Secretary
Fish and Wildlife and Parks

Enclosures

ENCLOSURE I

Initial Reservations

The reservations white paper makes significant progress toward developing methods for identifying, protecting, and allocating water for natural system restoration and human uses. We are especially pleased to see a proposal for adopting an initial water reservation for the Everglades National Park. However, we recommend that you consider initial water reservations for all major state and federal water bodies within the South Florida ecosystem. Of particular importance to the Department is the adoption of initial water reservations for Biscayne National Park and Big Cypress National Preserve.

We also support basing initial reservations on a rainfall driven formula. We look forward to working with the District as modeling is developed to blend the concepts of existing legal sources, such as the 1970 Minimum Delivery Act, and rainfall driven schedules.

Existing Legal Sources

The reservations white paper provides a very clear and accurate discussion (pages 12-16) of the issues and debates concerning existing legal sources of water under the Savings Clause in WRDA 2000. However, regulatory releases are not considered to be among the existing legal sources (page 17, lines 13-15). The natural system, including fish and wildlife, has historically depended, and continues to depend, on regulatory releases for a substantial portion of its water supply. Those portions of the regulatory releases should be identified as existing legal sources under the Savings Clause. Exclusion of regulatory discharges as existing legal sources for the natural system will eliminate Savings Clause protection for much of the water upon which the natural system depends.

Flood Protection

The reservations white paper is silent on the subject of how to incorporate flood protection considerations in implementing water supply assurances and reservations. First, we believe that existing flood protection levels of service need to be included in the modeling used to quantify existing legal sources. It is essential that the analyses for saving clause protections for water use and flood protection be compatible.

Secondly, current and future drainage should be accounted for in evaluating regional water availability. The model that is used to quantify regional water supplies should account not only for all present and future uses of water, but also for all present or future committed losses of surface or ground water.

Lastly, although the white paper proposes to consult the regional water availability "ledger " in evaluating new permits for consumptive use, there is no comparable linkage to evaluating new drainage permits. Without such a linkage it is not possible to accurately evaluate any potential impacts of new surface water management permits.

Protection of Reservations During Water Shortages

It is especially important that the natural system be protected during periods of water shortage. The District has advocated an approach of "shared adversity " in droughts that are more severe than 1-in-10 year events. We recognize the importance of water availability for human health and safety during water shortages, but we also believe it is important to balance those interests with the needs of the natural system. We propose the adoption of guidelines for water availability during water shortages taking into account both the needs for human health and safety and the natural system to implement the District's "shared adversity" approach. Natural systems in South Florida are adapted to droughts of the approximate frequency and intensity that occurred prior to human impacts. However, if droughts are more frequent and extreme than those to which the ecosystem and its components can adapt, the ecosystem may be unsustainable, or, even if sustainable, not able to be restored.

Regional Water Availability

The white paper proposes adoption of a regional water availability rule that will identify the amount of water available at any time for all uses within a user basin. The Department supports the expeditious adoption of such a rule. The development of a system-wide "ledger" to track water availability and to define the quantities available for all uses within different basins is an important step toward assuring that water is allocated in a way that will allow the benefits of the CERP to be realized.

ENCLOSURE II
[Specific Editorial And Technical Comments]

Page 5, line 37 (II. A. Paragraph 1) "...should be read out of context to **the** entire WRDA 2000 Act."

Page 10, line 35 – ". . . the user must demonstrate that the proposed rule is reasonable and beneficial." It appears that "proposed permit" was the intended language.

Page 10, lines 36-38 – This statement implies that CUP criteria are set so as to allow harm to water resources in any drought that is more severe than a 1-in-10 year event. However, 1-in-10 year certainty of supply is intended to assure permit holders that they will not experience cutbacks in less severe droughts. We do not agree that the 1-10 year planning target means that harm to the natural system in more severe droughts is acceptable.

Page 10, line 40 (III. Paragraph 3) "**More severe** drought conditions may cause even further reductions..."

Page 11, line 20-22 (III. Paragraph 5, last sentence) It is not clear how a modification in a performance measure can be used to "address" shortfalls in the plan. Changing the target of a performance measure would only serve to rescale our expectations of the plan, it would not improve the performance of the plan. Changing the method of calculation would affect what we measure or how we measure, but would not improve the actual performance of the constructed plan, whether the plan itself was deficient or not.

Page 11, lines 41-45 – It will be important to coordinate RECOVER activities with the public processes involved in rule-development. Although reservation of water for CERP projects will be conducted by the SFWMD under state authority, the intimate relationship between the CERP and state water management rules makes it desirable, if not essential, that the two efforts have input and support from all affected parties. Further development of the pre-CERP baseline, interpretation of the WRDA 2000 savings clause, and guidance on PIR quantification of water for the natural system and other uses, would best be coordinated through appropriate CERP processes such as RECOVER to ensure that all CERP partners are fully involved.

Page 12, line 27 (IV. A. 1. Paragraph 3) missing parenthesis after 2

Page 12, line 30 through p14 – This section presents "guiding principles" for the pre-CERP baseline. At least three functions are proposed for the pre-CERP baseline: identification and quantification of existing legal sources consistent with state and federal law (page 17, lines 26-29); identification of initial regional water availability (page 19, lines 24-25); and comparison during planning of the effect of one or more CERP projects to the conditions prior to CERP (page 22, lines 44-45). The paper assumes that a single pre-CERP baseline can be constructed that will serve all these functions adequately and in accordance with all legal mandates. This needs to be demonstrated. Rather than assuming that all functions of the baseline can be

addressed simultaneously, a step-wise discussion is needed to consider, for each function separately, the baseline properties needed to support these functions. Having identified the key properties for each baseline function, it should then be more straightforward to affirm whether or not a single baseline model simulation can provide all of the information that is required.

Page 12, line 33 (IV. A. 2. Paragraph 1) "...timing, quantity, [**delete and**] distribution, and quality..."

Page 13, lines 8-9 – The paper does not explain why an update of the assumptions used in the 1995 bases for the Restudy and the LECRWSP is an "issue." Further explanation would help to clarify the issue.

Page 13, lines 11-17 and page 14, lines 12-24 –The White Paper should include a summary of the relative merits of the different methods for estimating supplemental irrigation needs, as developed and presented to the public in the "B-list" rule workshops, specifically regarding the draft supplemental irrigation requirments rule (section 2.3 B.O.R.)

Page13, lines 19-29 – Future commitments of water: The issue whether or not these commitments had been made after December 2000 need to be addressed and we look forward to working with you to resolve these important issues.

Page 14, lines 4-5 – It is not clear why the classification of sources as primary, secondary, tertiary is useful to the purposes of this paper as a general principle.

Page 14, lines 34-37 – Identification of "historic operational deliveries for beneficial uses by fish and wildlife" will require considerable work. There are presently only a few existing operational rules that are intentionally directed at providing benefits to fish and wildlife (e.g., Minimum Deliveries to ENP Act; regulation schedule "floor" deliveries to WCA-1). However, the highly manipulated nature of south Florida's hydrology means that most natural areas (the WCAs, Lake Okeechobee, the estuaries and bays) are dependent on regulatory discharges or releases for significant portions of "beneficial" deliveries. Distinguishing which regulatory discharges are beneficial and which are not will be difficult. An appropriate approach would include use of key performance measures for the natural system combined with modeling to determine how natural system performance depends on specific regulatory deliveries. For example, the ability to maintain hydroperiods into the dry season within the WCAs depends at least in part on regulatory discharges into the WCA system during the wet season. Those same discharges may cause immediate detrimental effects in the WCAs, for example by causing wet season depths to exceed those under Natural System Model conditions.

Page 15, lines 24-28 - The white paper proposes to use the South Florida Water Management Model (SFWMM) to quantify existing legal sources, define regional water availability within source basins, identify baseline water for adoption of an initial reservation for the Everglades, and quantify water to be reserved for the natural system. Utilization for this model for these talks involves a multitude of decisions about model assumptions, methods for estimating user demands, and simulation of C&SF project operations during flood events and water shortages. It

is important that appropriate technical staff from all affected parties be informed about and participate in these important model specification decisions. The current effort to develop a multi-agency modeling group in West Palm Beach is an important step toward providing the staffing needed to handle the significant workload, while also improving agency participation and increasing public confidence in the models.

Page 16, Spatial Identification of Existing Legal Source User Basins (Table) – The Table is a good start at identifying Legal Source User Basins and Source Dependence. However, we recommend expanding the table to include other federal and state existing legal source user basins and the sources upon which those user basins are dependent. The following are examples of possible additions:

- EAA as a source for the WCAs
- Biscayne as a Legal Source User Basin listing Local Basin Rainfall, Surficial Aquifer, and WCA's as the sources
- WCA 3A as a source for Big Cypress Natural Preserve
- LEC (Acme Basin B, North Springs Improvement District, and the S-9 Structure) as a source for the WCAs and ENP
- Additional sources for Rotenberger Wildlife Management Area
- Adding estuaries and bays as separate user basins

Also, we would like a clarification of the listing in the table of WCA 3B as a source for Service Area 3.

Page 17, lines 8-10 – Performance evaluation for PIR development will probably be evaluated using either a baseline of 2050, a baseline corresponding to the year the project is expected to become operational, or both. The pre-CERP baseline's use in PIR development will primarily be as a benchmark to consider progress toward reaching overall restoration targets and for considering environmental impacts to comply with NEPA.

Page 17, lines 12-16 – The present natural system has historically depended and continues to depend on regulatory discharges for a substantial portion of its water supply. As stated earlier, the portion of these water flows that are beneficial needs to be identified. Exclusion of regulatory discharges as existing legal sources for the natural system would eliminate savings clause protections for much of the water on which these systems depend. This can be readily documented by comparing discharges through structures into the WCAs, which except for WCA-1 are almost exclusively regulatory in nature, to the amount of local basin rainfall. Structure flows represent a substantial percentage of all inputs to the WCA system.

Page 17, lines 21-24 – Figure 4 depicts an example of a volume duration curve using "percent of time equaled or exceeded" on the x-axis, but labeling regions of the curve as wet, average, or dry "years." This appears to be a mixture of a cumulative volume duration curve that aggregates discharge volumes across all years and a return frequency analysis in which points on the curve represent annual values plotted against annual return frequency. The latter approach is preferable for analysis of the relationship between interannual variation in rainfall and available water supply.

Page 17, line 46 (IV. E. Paragraph 2) "Conversely, seepage control may [**delete have**] not deliver additional water...

Page 18, lines 4-6 – In using the SFWMM to evaluate a proposed CERP project, it is important to consider the future year that will be the basis for the model assumptions. If the CERP project is modeled when it comes on line in year 20xx, for example, and performance of the project is compared to a volume duration curve generated for a 2000 pre-CERP baseline, shortfalls in the performance of the CERP project could appear that are unrelated to plan performance but are the result of intervening factors such as unanticipated increases in water supply demands. Application of the savings clause in this case will be problematic, given that the "fault" is not with the CERP project but with the prediction of future demands. A method for dealing with these model-comparison issues needs to be developed.

Page 19, lines 40-45 -- It is not clear whether this paragraph proposes to use a single climatologic year in the SFWMM to define 1-in-10 drought conditions for the entire region, or if different years would be used in different regions.

Page 20, lines 23-25 – A criterion is proposed for evaluating permit applications based in part on whether or not groundwater withdrawals below a canal will lead to movement of regional water into the well. However, any increase in seepage of regional water out of the canal that results from new well withdrawals should be counted as a debit to the regional water availability, even if the regional water is not drawn into the well. It is still water that is lost from the canal and that would need to be replenished from some source either within the basin or through regional system deliveries.

Page 21, lines 4-7 – It will be very important to develop a process to determine how to re-allocate water if the quantity adopted in the regional water availability rule is insufficient to meet demands within a basin.

Page 21, lines 9-29 – The SFWMD plan to adopt a pre-CERP reservation for the Everglades is a crucial step toward insuring that the natural system does not continue to decline before CERP can being to provide progress toward restoration. However, this section does not address pre-CERP reservations for parts of the system other than the WCAs and ENP. We recommend that the SFWMD adopt pre-CERP reservations for other water bodies, pursuant to the SFWMD's Governing Board's Lower East Coast Regional Water Supply Plan, Planning Document page 197.

Page 22, lines 4-6 – The paragraph states that system-wide assessment of CERP project benefits will be needed "in most cases." It is not clear why this assessment would not be needed for each CERP component.

Page 23, line 41- Page 24 line 8 –Projects that decrease seepage rather than increase supply also need to be accounted for in terms of their spatial location and changes in flow across basin boundaries.

Page 23, lines 10-36 – It would be helpful to discuss how the establishment of reservations and possible updates or modifications of pre-existing reservations would be linked to periodic CERP updates and to the establishment of interim hydrologic goals for restoration.

Page 24, line 29 through page 25 – It would be useful to include a discussion of potential operational changes as a result of adaptive assessment. Hydrologic targets for the natural system are likely to be refined during the long period of CERP implementation, and operations will need to change accordingly.

Page 34, line 4-5 (Appendix A. Project performance) And their definition could be, "The expected benefits of a project as evaluated according to an agreed upon set of performance measures." Your definition of performance measures includes the concept of targets, which are compatible with the performance expected in the CERP, so this detail is not necessary in the project performance definition.

Page 34, line 33 (Appendix A. Volume probability curve) close parenthesis after 'gallons'.

Figures and Appendices

Page 26, Figure 1 – This is a very useful figure, but it contains a few features that are likely to give misleading impressions about the relationship between natural system needs and water supply, as follows.

- NSM performance in many areas is likely to entail quantities of water during the wettest years that are smaller, not larger, than the pre-CERP quantities. With few exceptions the natural system receives too much water during flood years.
- If human demands and natural system demands are added together in this graph, the resulting curve would indicate that more water is needed during the driest years than during intermediate-level droughts (e.g., 1-in-6 to 1-in-10 year droughts, approximately), as a consequence of increasing human demands.
- A graph showing how *total* available water changes as droughts become more severe would be very helpful in illustrating how changing demands for both humans and the natural system can be used to identify the conditions under which the available supply for consumptive uses will be most limited.